

For ease of explanation, claim 1 is presented which recites:

1. (Previously Presented) A vehicle headlamp apparatus comprising:

map information acquiring means for acquiring positional information on a vehicle on a map and the environmental information;

environmental condition detection means for detecting an environmental condition relating to a traveling road on which the vehicle is driven according image information or the information acquired from a radar; and

**light distribution control means for varying** the light distribution of a headlamp attached to a vehicle in accordance with variation with the travel condition of the vehicle and the environmental condition,

**wherein said light distribution control means** performs light distribution control over the headlamp according to one of information adopted with the priority given thereto out of the information derived from said map information acquiring means and the information detected by said environmental condition detection means or according to information complemented with both kinds of information above. (Emphasis added)

In other words, the functional recitation “light distribution control means performs light distribution control over the headlamp according to one of information adopted with the priority given thereto” is part of a **wherein** clause which further defines the previously recited **means-for** functional element: light distribution control **means for** varying the light distribution of a headlamp attached to a vehicle in accordance with variation with the travel condition of the vehicle and the environmental condition. As the Federal Circuit made clear, if a feature is in “means for” language without being modified by sufficient structure, the feature invokes 35 USC 112, sixth paragraph. (See *Unidynamics Corp. v. Automatic Prod. Int'l*, 157 F.3d 1311, 1319, Fed Cir. 1998) In this case, the functional recitation above is part of the wherein clause which further defines the previously recited means-for functional element. Thus, 35 USC 112, sixth paragraph should be invoked.

In addition, the “light distribution control means” element can be, in one embodiment, for example, structural elements such as an electronic control unit (ECU) including ECU 8b, 9b, 14, 15, 16 s as shown in FIG. 2 of the current application. Thus, there is structural support for the functional limitation recited in claim 1.

Therefore, the functional recitation “light distribution control means performs light distribution control over the headlamp according to one of information adopted with the priority given thereto” should be given patentable weight for at least this reason.

Moreover, since the above quoted feature should be given patentable weight, applicants respectfully assert that claim 1 is not taught or suggested by the Gotou reference for at least the following reasons.

Claim 1 is presented for ease of explanation:

1. (Previously Presented) A vehicle headlamp apparatus comprising:

map information acquiring means for acquiring positional information on a vehicle on a map and the environmental information;

environmental condition detection means for detecting an environmental condition relating to a traveling road on which the vehicle is driven according image information or the information acquired from a radar; and

light distribution control means for varying the light distribution of a headlamp attached to a vehicle in accordance with variation with the travel condition of the vehicle and the environmental condition,

**wherein said light distribution control means performs light distribution control over the headlamp according to one of information adopted with the priority given thereto out of the information derived from said map information acquiring means and the information detected by said environmental condition detection means or according to information complemented with both kinds of information above. (Emphasis added)**

Applicants assert that the above bolded features of claim 1 is not taught or suggested by the Gotou reference for at least the following reasons. For example, FIG. 3 of the Gotou reference shows a navigation system 30 with a light distribution control ECU 20 that receives map information 35 and vehicle position information from navigation system 30. However, the Gotou reference is silent regarding controlling a headlamp based on information “adopted with priority given” to the information. Thus, at least for these reason, claim 1 is not anticipated by the Gotou reference.

Moreover, the Gotou reference fails to teach or suggest the above quoted limitation. For example, the navigation system 30 of the Gotou reference displays vehicle position along with the map information from device 35. (See column 4, lines 63-65). In other words, the system 30

does not use the map information to control the light distribution. In particular, the system does not apply a priority to that information. Thus, the Gotou reference fails to teach or suggest the claimed invention for at least these additional reasons.

Because claims 2-4, 8, 9 and 11-13 depend from claim 1, claims 2-4, 8, 9 and 11-13 also should be allowed for at least the same reasons as claim 1.

*Claims 5-7 are rejected under 35 USC 103(a) as being unpatentable over Gotou (U.S. Patent No. 5,562,336) in view of Gotou (U.S. Patent No. 5,193,572).*

Because claims 5-7 depend on claim 1, claims 5-7 should be allowable for at least the same reasons as claim 1.

Moreover, claims 5-7 are patentable over the cited references for the following additional reasons.

For ease of reference claim 5 is presented which recites:

5. (Original) A vehicle headlamp apparatus as claimed claim 1, wherein said **environmental condition detection means comprises an imaging unit for forming an image ahead of the vehicle**; when detection capability of said imaging unit is low, light distribution control means performs light distribution control over the headlamp according to the information derived from said map information acquiring means. (Emphasis Added)

The Gotoh reference fails to teach or suggest the above bolded features for at least the following reasons. The office action cites picture processing apparatus 12 of the Gotoh reference as being equivalent to the “imaging unit for forming an image ahead of the vehicle” as recited in claim 5 of the present application. Applicants respectfully disagree.

Rather, The Gotoh reference is directed to a technique for controlling a vehicle head lamp based on the strain experienced by a driver of the vehicle. (See abstract) For example, FIG. 2 shows a CCD camera 11 that takes a picture of the driver, particularly, the eye of the driver, as shown in FIG. 3, and feeds it to the picture processing apparatus 12. In other words, the Gotoh reference forms an image of the eye of the driver, however, it does **not** teach or suggest that the “environmental condition detection means comprises an imaging unit for forming an image ahead of the vehicle” as recited in claim 5. Thus, claim 5 is patentable over the cited references for at least this reason.

Applicant : Shoji Kobayashi et al.  
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Claims 6 and 7 recites a feature similar to the above bolded feature of claim 5. Thus, claims 6 and 7 should be allowable for at least the same reasons as claim 5.


*Claim 10 is rejected as being unpatentable over Gotou (U.S. Patent No. 5,562,336) in view of Stam et al. (U.S. Patent No. 5,837,994).*

Because claim 10 depends on claim 1, claim 10 should be allowable for at least the same reasons as claim 1.

Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 1/5/03

  
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Arthur Ortega  
Reg. No. 53,422

Fish & Richardson P.C.  
45 Rockefeller Plaza, Suite 2800  
New York, New York 10111  
Telephone: (212) 765-5070  
Facsimile: (212) 258-2291